PUBLIC SAFETY DEPARTMENT[661]

Notice of Termination and Notice of Intended Action

Pursuant to the authority of Iowa Code section 100C.7, the Department of Public Safety hereby terminates the rule making initiated by its Notice of Intended Action published in the Iowa Administrative Bulletin as **ARC 4753B** on December 21, 2005, and gives Notice of Intended Action to adopt new Chapter 275, "Certification of Automatic Fire Extinguishing System Contractors," Iowa Administrative Code.

Iowa Code chapter 100C was enacted during the 2004 session of the Iowa General Assembly and became effective July 1, 2005. It provides for the certification of automatic fire extinguishing system contractors based on administrative rules adopted by the Fire Marshal pursuant to Iowa Code chapter 17A. The statute provides for the establishment of a Fire Extinguishing System Contractors Advisory Board, appointed by the Commissioner of Public Safety, and provides that the Fire Marshal shall consult with the Board prior to the adoption of the administrative rules for the certification program.

Initially, these rules, which are based upon recommendations developed by the Fire Extinguishing System Contractors Advisory Board, were published in a Notice of Intended Action (ARC 4753B) in the Iowa Administrative Bulletin on December 21, 2005. In developing those recommendations, the Board reviewed rules and statutes from other states, material from industry groups, and information from organizations which develop industry standards and codes, such as the National Fire Protection Association (NFPA), and testing organizations, such as the National Institute for Certification in Engineering Technologies (NICET).

In addition to soliciting comment on the rules proposed in the prior Notice of Intended Action, the preamble of the Notice included the following language:

Comment is especially invited on one area which is not addressed in the proposed rules, but which the Fire Marshal and the Board intend to consider for inclusion in the adopted rules: Should there be separate, less stringent criteria for qualifying as a responsible managing employee for a contractor whose work includes only fire extinguishing systems of limited application, such as sprinkler systems for one— or two—family residences or special hazard systems designed for use in smaller hood and duct systems? These systems may be listed for use in limited applications by nationally recognized testing laboratories. The State Fire Marshal and the Board

would be interested in hearing comments about whether separate criteria should be established for contractors whose work is limited to these systems and about what these separate criteria should be.

A public hearing on the rules proposed in the prior Notice of Intended Action was held on January 18, 2006. Numerous comments were received, both on the issue of alternative requirements for contractors whose work is limited to installation of systems of limited application (sometimes called "preengineered systems") and on other items in the proposed rules. Based on the comments received, the Board concluded that extensive revisions would be needed to the rules as previously proposed and that it would therefore be advisable to terminate the previous Notice and issue a new Notice of Intended Action in order to provide an opportunity for public comment on the revised proposed rules.

The following are changes from the rules as proposed in the original Notice of Intended Action:

- Definitions are provided for several terms which were not defined in the original Notice.
- Alternative requirements are provided for qualifications of a responsible managing employee of a contractor whose work is limited to certain preengineered fire suppression systems, or for a contractor whose work is limited to imspection and testing of water–based systems.
- A provision is added for training and testing programs, other than those specifically recognized in the rules, to obtain approval from the Fire Marshal.
- An exception was added to the requirement to maintain current registration with the Labor Services
 Division of the Iowa Workforce Development Department for fire extinguishing system contractors
 to which the contractor registration law does not apply.
- Additional clarifying language is added to the insurance coverage requirement.
- What had been a separate application fee is included in the certification fee at the same total cost.

A public hearing on these proposed rules will be held on April 19, 2006, at 10 a.m. in the Fire Marshal Division Conference Room, 401 S.W. 7th Street, Suite N, Des Moines, Iowa 50309. Persons may present their views orally or in writing at the public hearing. Persons who wish to make oral presentations at the public hearing should contact the Agency Rules Administrator, Iowa Department of Public Safety, Wallace State Office Building, Des Moines, Iowa 50319, by mail; by telephone at (515)281–5524; or by electronic mail to admrule@dps.state.ia.us, at least one day prior to the public hearing.

Any written comments or information regarding these proposed rules may be directed to the Agency Rules Administrator by mail or electronic mail at the addresses indicated by 4:30 p.m. on April 19, 2006, or submitted at the public hearing. Persons who wish to convey their views orally other than at the public hearing may contact the Agency Rules Administrator by telephone or in person at the Department office by 4:30 p.m. on April 19, 2006.

These rules are intended to implement Iowa Code chapter 100C.

The following **new** chapter is proposed.

CHAPTER 275 CERTIFICATION OF AUTOMATIC FIRE EXTINGUISHING SYSTEM CONTRACTORS

661—275.1(100C) Establishment of program. There is established within the fire marshal division a fire extinguishing system contractors certification program. The program is established pursuant to Iowa Code chapter 100C.

275.1(1) Certification required. No person shall act as a fire extinguishing system contractor without being currently certified as a fire extinguishing system contractor by the fire marshal.

275.1(2) Endorsement. The certification of each contractor shall carry an endorsement for:

- a. Automatic sprinkler system layout;
- b. Special hazards suppression systems;
- c. Preengineered dry chemical or wet agent fire suppression systems;
- d. Installation of preengineered water-based fire suppression systems in one- and two-family dwellings;
- e. Testing and inspection of water-based systems; or
- f. Any combination thereof.

Any person acting as a fire extinguishing system contractor shall do so only in relation to systems covered by the endorsement on the contractor's certification.

275.1(3) Length of certification. Certification shall normally be for one year and shall expire on March 31 each year. A certification which is effective on a date other than April 1 shall be effective on the date on which the certification is issued and shall expire on the following March 31.

275.1(4) Inquiries. Inquires regarding the fire extinguishing system contractors certification program may be addressed to:

Fire Extinguishing System Contractors Certification Program

Fire Marshal Division

Iowa Department of Public Safety

401 S.W. 7th Street, Suite N

Des Moines, Iowa 50309

Inquiries may be addressed by electronic mail to <u>fescep@ dps.state.ia.us</u>, by telephone to (515)281–5821, or by facsimile to (515)242–6299.

661—275.2(100C) Definitions. The following definitions apply to rules 661—275.1(100C) through 661—275.7(100C):

"Automatic fire extinguishing system" means a system of devices and equipment that automatically detects a fire and discharges an approved fire extinguishing agent onto or in the area of a fire and includes automatic sprinkler systems, carbon dioxide extinguishing systems, deluge systems, automatic dry—chemical extinguishing systems, foam extinguishing systems, and halogenated extinguishing systems, or other equivalent fire extinguishing technologies recognized by the fire extinguishing system contractors advisory board.

"Automatic sprinkler system" means an integrated fire protection sprinkler system usually activated by heat from a fire designed in accordance with fire protection engineering standards and includes a suitable water supply. The portion of the system above the ground is a network of specially sized or hydraulically designed piping installed in a structure or area, generally overhead, and to which automatic sprinklers are connected in a systematic pattern.

"Carbon dioxide extinguishing system" means a system supplying carbon dioxide from a pressurized vessel through fixed pipes and nozzles and includes a manual or automatic actuating mechanism.

"Clean agent" means an electrically nonconducting, volatile, or gaseous fire extinguishant that does not leave a residue upon evaporation.

"Deluge system" means a sprinkler system employing open sprinklers attached to a piping system connected to a water supply through a valve that is opened by the operation of a detection system installed in the same area as the sprinklers.

"Dry chemical" means a powder composed of very small particles, usually sodium bicarbonate—, potassium bicarbonate—, or ammonium phosphate—based, with added particulate material supplemented by special treatment to provide resistance to packing, resistance to moisture absorption (caking), and the proper flow capabilities.

"Dry pipe sprinkler system" means an extinguishing system employing automatic sprinklers that are attached to a piping system containing air or nitrogen under pressure, the release of which (as from the opening of a sprinkler) permits the water pressure to open a valve known as a dry pipe valve, and the water then flows into the piping system and out the opened sprinklers.

"Fire extinguishing system contractor" or "contractor" means a person engaging in or representing oneself to the public as engaging in the activity or business of layout, installation, repair, alteration, addition, maintenance, or maintenance inspection of automatic fire extinguishing systems in this state.

"Foam extinguishing system" means a special system discharging foam made from concentrates, either mechanically or chemically, over the area to be protected.

"Halogenated extinguishing system" means a fire extinguishing system using one or more atoms of an element from the halogen chemical series of fluorine, chlorine, bromine, and iodine.

"Layout" means drawings, calculations and component specifications for the specifics to achieve the specified system design installation. NOTE: "Layout" does not include design.

"Listed" means equipment, materials, or services included in a list published by a nationally recognized independent testing organization concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

"Maintenance inspection" means periodic inspection and certification completed by a fire extinguishing system contractor. For purposes of this chapter, "maintenance inspection" does not include an inspection completed by a local building official, fire inspector, or insurance inspector, when acting in an official capacity.

"Preengineered dry chemical or wet agent fire suppression system" means any system having predetermined flow rates, nozzle pressures and limited quantities of either agent. These systems have specific pipe sizes, maximum and minimum pipe lengths, flexible hose specifications, number of fittings and number and types of nozzles prescribed by a nationally recognized testing laboratory. The hazards protected by these systems are specifically limited by the testing laboratory as to the type and size based upon actual fire tests. Limitations on hazards that can be protected by these systems are contained in the manufacturer's installation manual, which is referenced as part of the listing.

"Preengineered water-based system" means a packaged, water-based sprinkler system including all components connected to a water supply and designed to be installed according to pretested limitations.

"Responsible managing employee" means an owner, partner, officer, or manager employed full—time by a fire extinguishing system contractor who is designated as the responsible managing employee for a fire extinguishing system contractor and who meets the requirements for a responsible managing employee established in rule 661—275.3(100C).

"Special hazards suppression system" means a fire extinguishing system utilizing fire detection and control methods to release an extinguishing agent, other than water connected to a dedicated fire protection water supply.

"Wet agent" or "wet chemical" means an aqueous solution of organic or inorganic salts or a combination thereof that forms an extinguishing agent.

661—275.3(100C) Responsible managing employee. Each fire extinguishing system contractor shall designate a responsible managing employee and may designate one or more alternate responsible managing employees.

275.3(1) The responsible managing employee shall be designated in the application for certification, and if the responsible managing employee is no longer acting in that role, the contractor shall notify the fire marshal, in writing, within 30 calendar days, on a form designated by the fire marshal.

275.3(2) If the responsible managing employee is no longer acting in that role and the contractor has designated an alternate responsible managing employee, the alternate responsible managing employee shall become the responsible managing employee and the contractor shall so notify the fire marshal, in writing, within 30 calendar days of the date on which the preceding responsible managing employee ceased to act in that role. If the contractor has designated more than one alternate responsible managing employee, the notice to the fire marshal shall indicate which alternate responsible managing employee has assumed the position of responsible managing employee.

- 275.3(3) If the responsible managing employee designated by a fire extinguishing system contractor is no longer acting in the role of responsible managing employee and the contractor has not designated an alternate responsible managing employee, the contractor shall designate a new responsible managing employee and shall notify the fire marshal, in writing, of the designation within six months of the date on which the former responsible managing employee ceased to act in that capacity, on a form designated by the fire marshal. If the fire marshal has not been notified of the appointment of a new responsible managing employee within six months, the fire marshal shall suspend the certification of the fire extinguishing system contractor.
- **275.3(4)** A responsible managing employee or an alternate responsible managing employee shall meet one of the following requirements:
- a. Current certification by the National Institute for Certification in Engineering Technologies at level III or above in fire protection technology, for automatic sprinkler system layout, special hazards suppression systems, or both.
- b. If a contractor's work subject to these rules is limited to the installation of preengineered dry chemical or wet agent fire suppression systems, the responsible managing employee shall meet the following requirements:
- (1) Completion of any training required by the manufacturer of any system or systems which the contractor installs; and
- (2) Certification by the National Institute for Certification in Engineering Technologies at level II or above in fire protection technology, for special hazards suppression systems; certification by the National Association of Fire Equipment Distributors in preengineered kitchen fire suppression systems or preengineered industrial fire suppression systems; or completion of an applicable training or testing program which has been approved by the fire marshal.
- c. The responsible managing employee for a contractor whose work subject to these rules is limited to installation of one- or two-family dwelling preengineered water-based systems shall have completed:
 - (1) Any training by the manufacturer of any system the contractor installs; and
 - (2) An applicable training or testing program which has been approved by the fire marshal.
- d. The responsible managing employee for a contractor whose work is limited to the inspection and testing of water-based fire extinguishing systems shall have current certification from the National Institute for Certification in Engineering Technologies at level III in fire protection technology, inspection and testing of water-based systems.

e. Current licensure as a professional engineer by the Iowa engineering and land surveying examining board, with competence in fire extinguishing system design.

EXCEPTION: Prior to April 1, 2008, a fire extinguishing system contractor may receive provisional certification if the person designated as the contractor's responsible managing employee has initiated procedures for obtaining certification by the National Institute for Certification in Engineering Technologies at level III in fire protection technology for automatic sprinkler system layout, special hazards suppression systems, or both, and has satisfactorily completed testing which is offered by a third party and has been approved by the fire marshal, for competency in fire protection technology for automatic sprinkler system layout, special hazards suppression systems, or both. The contractor shall provide the fire marshal with notification and documentation of the required certification within 30 days after the contractor's provisional certification was initially issued.

After one year of provisional certification of the contractor, the responsible managing employee shall have current certification by the National Institute for Certification in Engineering Technologies at level II or above in fire protection technology for automatic sprinkler system layout, special hazards suppression systems, or both. Documentation that this requirement has been met shall be provided by the contractor to the fire marshal within 30 days after the one—year anniversary of the effective date of the initial provisional certification.

Provisional certification shall not be recognized on or after April 1, 2009.

275.3(5) In any case in which training or testing that is offered to satisfy the requirements of this rule is required to be approved by the fire marshal, such approval is required prior to acceptance of the training or testing to meet certification requirements. Approval by the fire marshal of any training or testing to meet these requirements may only be sought by the individual, firm, or organization providing the testing or training. Any individual, firm or organization seeking to obtain such approval may apply to the fire marshal. An application form for approval of a testing or training program may be obtained by contacting the fire extinguishing system contractors certification program as specified in subrule 275.1(4).

275.3(6) Work performed by a contractor subject to these rules shall be limited to areas of competence indicated by the specific certification or certifications or other training requirements met by the responsible managing employee.

- **661—275.4(100C) Certification requirements.** A fire extinguishing system contractor shall meet all of the following requirements in order to receive certification from the fire marshal and shall continue to meet all requirements throughout the period of certification. The contractor shall notify the fire marshal, in writing, on a form designated by the fire marshal, within 30 calendar days if the contractor fails to meet any requirement for certification.
- **275.4(1)** The contractor shall designate a responsible managing employee as provided in rule 661—275.3(100C).
- 275.4(2) The contractor shall maintain general and complete operations liability insurance for the layout, installation, repair, alteration, addition, maintenance, and inspection of automatic fire extinguishing systems in the following amounts: \$500,000 per person, \$1,000,000 per occurrence, and \$1,000,000 property damage.
- a. The carrier of any insurance coverage maintained to meet this requirement shall notify the fire marshal 30 days prior to the effective date of cancellation or reduction of the coverage.
- b. The contractor shall cease operation immediately if the insurance coverage required by this subrule is no longer in force and other insurance coverage meeting the requirements of this subrule is not in force. A contractor shall not initiate any installation of a fire extinguishing system which cannot reasonably be expected to be completed prior to the effective date of the cancellation of the insurance coverage required by this subrule and of which the contractor has received notice, unless new insurance coverage meeting the requirements of this subrule has been obtained and will be in force upon cancellation of the prior coverage.
- 275.4(3) The contractor shall maintain current registration as a contractor with the labor services division of the Iowa workforce development department in compliance with Iowa Code chapter 91C and 875—Chapter 150, Iowa Administrative Code.

EXCEPTION: A contractor shall not be required to maintain registration with the labor services division of the Iowa workforce development department if the contractor does not meet the definition of "contractor" for purposes of Iowa Code chapter 91C and 875—Chapter 150, Iowa Administrative Code.

275.4(4) The contractor shall maintain compliance with all other applicable provisions of law related to operation in the state of Iowa and of any political subdivision in which the contractor is performing work.

661—275.5(100C) Application and fees.

275.5(1) Application. Any contractor seeking certification as a fire extinguishing system contractor shall submit a completed application form to the fire marshal. The application shall be filed no later than 30 days prior to the date on which certification is required or on which an existing certification expires. An application form may be obtained from the fire marshal or from the Web site of the fire extinguishing system contractor certification program (www.state.ia.us/government/dps/fm/fescep). The application form shall be submitted with all required attachments and the required application fee established in subrule 275.5(2). An application shall not be considered complete unless all required information is submitted, including required attachments, and fees, and shall not be processed until it is complete.

275.5(2) Certification fee. The certification fee shall be \$500 per year. If an application is denied, all except \$100 of the fee may be refunded if the applicant applies to the fire marshal for a refund. No refund of the certification fee shall be made if the certification is revoked or if the denial of the certification is based on the applicant knowingly including false or misleading information on the application.

EXCEPTION: If a certification is effective after April 1 and no later than June 30, the certification fee shall be \$500. The certification fee for a certification which becomes effective between July 1 and September 30 shall be \$400. The certification fee for a certification which becomes effective between October 1 and December 31 shall be \$300. The certification fee for a certification which becomes effective between January 1 and March 31 shall be \$200.

275.5(3) Payment. The certification fee shall be submitted by draft, check, or money order in the applicable amount payable to the Fire Extinguishing System Contractor Certification Program. If the application is denied, the certification fee less \$100 shall be returned to the applicant.

275.5(4) Amended certification fee. The fee for issuance of an amended certification is \$100. The fee shall be submitted with the request for an amended certification. A contractor shall request and the fire marshal shall issue an amended certificate for any of the following:

- a. A change in the designation of the responsible managing employee;
- b. A change in insurance coverage; or
- A change in any other material information included in or with the initial or renewal application.

275.5(5) Attachments. Required attachments to the application for certification include, but are not limited to, the following:

- a. Documentation verifying that the contractor has in force the insurance coverage required by subrule 275.4(2). The documentation shall include an acknowledgment that the contractor's insurance coverage extends to any work performed by the contractor within the scope of certification pursuant to this chapter. The documentation may consist of a letter from the insurance carrier or a copy of the insurance certificate with an endorsement showing the required information.
- b. Documentation verifying that the person designated as the responsible managing employee and any persons designated as alternate responsible managing employees have met the applicable certification requirements.

661—275.6(100C) Complaints. Complaints regarding the performance of any certified contractor, failure of a certified contractor to meet any of the requirements established in Iowa Code chapter 100C or this chapter or any other provision of law, or operation as a fire extinguishing system contractor without certification may be filed with the fire marshal. Complaints should be addressed as follows:

Fire Extinguishing System Contractors Certification Program

Fire Marshal Division

Iowa Department of Public Safety

401 S.W. 7th Street, Suite N

Des Moines, Iowa 50309

Complaints may be submitted by electronic mail to fescop@dps.state.ia.us or by facsimile to (515)242–6299.

Complaints should be as specific as possible and shall clearly identify the contractor against whom the complaint is filed. A form which may be used to file complaints is available on the Web site of the fire extinguishing system contractors certification program, at http://www.state.ia.us/government/dps/fm/fescep. Complaints may be filed without using the complaint form provided, but shall be submitted in writing. A complaint may be submitted anonymously, but if the name and contact information of the complainant are provided, the complainant will be notified of the disposition of the complaint.

661—275.7(100C) Denial, suspension, or revocation of certification; civil penalties; and appeals. The fire marshal may deny, suspend or revoke the certification of a contractor, or assess a civil penalty to the contractor, if any provision of these rules or any other provision of law related to operation as a fire extinguishing system contractor is violated.

275.7(1) Denial. The fire marshal may deny an application for certification:

- a. If the applicant makes a false statement on the application form or in any other submission of information required for certification. "False statement" means providing false information or failing to include material information, such as a previous criminal conviction or action taken by another jurisdiction, when requested on the application form or otherwise in the application process.
 - b. If the applicant fails to meet all of the requirements for certification established in this chapter.
- c. If the applicant is currently barred for cause from acting as a fire extinguishing system contractor in another jurisdiction.
- d. If an applicant has previously been barred for cause from operating in another jurisdiction as a fire extinguishing system contractor and if the basis of that action reflects upon the integrity of the applicant in operating as a fire extinguishing system contractor. If an applicant is found to have been previously barred for cause from operating as a fire extinguishing system contractor in another jurisdiction and is no longer barred from doing so, the fire marshal shall evaluate the record of that action with regard to the likelihood that the applicant would operate with integrity as a certified contractor. If an applicant is denied under this provision, the applicant shall be notified of the specific reasons for the denial.
- e. If the applicant has been convicted of a crime which reflects upon the integrity of the applicant in operating as a fire extinguishing system contractor. If an applicant is found to have a criminal record, the fire marshal shall evaluate that record with regard to the likelihood that the applicant would operate with integrity as a certified contractor. If an applicant is denied under this provision, the applicant shall be notified of the specific reasons for the denial.

275.7(2) Suspension. A suspension of a certification may be imposed by the fire marshal for any violation of these rules or Iowa Code chapter 100C or for a failure to meet any legal requirement to operate as a fire extinguishing system contractor in this state. Failure to provide any notice to the fire marshal as provided in these rules shall be grounds for suspension. An order of suspension shall specify the length of the suspension and shall specify that correction of all conditions which were a basis for the suspension is a condition of reinstatement of the certification even after the period of the suspension.

275.7(3) Revocation. A revocation is a termination of a certification. Certifications may be revoked by the fire marshal for repeated violations or for a violation which creates an imminent danger to the safety or health of individuals protected by a fire extinguishing system incorrectly installed by a certified contractor.

A certification which has been revoked shall not be reinstated for a period of one year after the effective date of the revocation and, in any event, until every condition which was a basis for the revocation has been corrected.

275.7(4) Civil penalties. The fire marshal may impose a civil penalty of up to \$500 per day during which a violation has occurred and for every day until the violation is corrected. A civil penalty may be imposed in lieu of or in addition to a suspension or may be imposed in addition to a revocation. A civil penalty shall not be imposed in lieu of a revocation.

275.7(5) Suspension or revocation for nonpayment of child support. The following procedures shall apply to actions taken by the department on a certificate of noncompliance received from the Iowa department of human services pursuant to Iowa Code chapter 252J:

- a. The notice required by Iowa Code section 252J.8 shall be served upon the certified contractor by restricted certified mail, return receipt requested, or personal service in accordance with Iowa Rule of Civil Procedure 1.305. Alternatively, the contractor may accept service personally or through authorized counsel.
- b. The effective date of revocation or suspension of certification of a contractor, as specified in the notice required by Iowa Code section 252J.8, shall be 60 days following service upon the contractor.
- c. Contractors shall keep the fire marshal informed of all court actions and all child support recovery unit actions taken under or in connection with Iowa Code chapter 252J and shall provide the fire marshal with copies, within 7 days of filing or issuance, of all applications filed with the district court pursuant to Iowa Code section 252J.9, all court orders entered in such actions, and withdrawals of certificates of noncompliance by the child support recovery unit.

- d. All applicable fees for an application or reinstatement must be paid by the contractor before a certificate will be issued, renewed, or reinstated after the fire marshal has denied the issuance or renewal of a certification or has suspended or revoked a certification pursuant to Iowa Code chapter 252J.
- e. In the event a contractor files a timely district court action following service of a notice pursuant to Iowa Code sections 252J.8 and 252J.9, the fire marshal shall continue with the intended action described in the notice upon the receipt of a court order lifting the stay, dismissing the action, or otherwise directing the department to proceed. For the purpose of determining the effective date of revocation or suspension of the certification, the department shall count the number of days before the action was filed and the number of days after the action was disposed of by the court.
- f. Suspensions or revocations imposed pursuant to this subrule may not be appealed administratively within the department of public safety.

Note: The procedures established in subrule 275.7(5) implement the requirements of Iowa Code chapter 252J. The provisions of Iowa Code chapter 252J establish mandatory requirements for an agency which administers a certification program, such as the one established in this chapter, and provide that actions brought under these provisions are not subject to contested case procedures established in Iowa Code chapter 17A, but must be appealed directly to district court.

275.7(6) Appeals. Any denial, suspension, or revocation of a certification, or any civil penalty imposed upon a certified contractor under this rule, other than one imposed pursuant to subrule 275.7(5) may be appealed by the contractor within 14 days of receipt of the notice. Appeals of actions taken by the fire marshal under this rule shall be to the commissioner of public safety and shall be treated as contested cases, following the procedures established in rules 661—10.301(17A) through 661—10.332(17A).

These rules are intended to implement Iowa Code chapter 100C.